

# SWITCHED CAPACITOR CIRCUIT CAPABLE OF MINIMIZING CLOCK FEEDTHROUGH EFFECT IN A VOLTAGE CONTROLLED OSCILLATOR CIRCUIT

## Abstract

A switched capacitor circuit for use in a voltage controlled oscillator (VCO) capable of minimizing clock feedthrough effect and an undesired momentary frequency drift in the VCO output frequency when the switched capacitor circuit is shut off. By gradually switching the switched capacitor circuit from an on state to an off state the clock feedthrough effect can be minimized. Several differently sized switch elements are used to selectively switch the capacitor from an internal capacitive node to ground. When switching the switched capacitor circuit to an off state, the control signals are sequenced to shut the switch elements off in order based on decreasing switch size. The smallest switch element can have a low-pass filter added to its control terminal to further decrease the clock feedthrough effect.